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The Experience of Emergency Department Providers With Embedded Palliative Care During COVID

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COVID-19 Content

The Experience of Emergency Department Providers With Embedded Palliative Care During COVID

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Abstract

Context. Although the importance of palliative care (PC) integration in the emergency department (ED) has long been recognized, few formalized programs have been reported, and none have evaluated the experience of ED clinicians with embedded PC.

Objectives. We evaluate the experience of ED clinicians with embedded PC in the ED during the coronavirus disease pandemic.

Methods. ED clinicians completed a survey about their perceptions of embedded PC in the ED. We summarized responses to closed-ended items using descriptive statistics and analyzed open-ended items using thematic analysis.

Results. There were 134 ED clinicians surveyed. About 101 replied (75% response rate). Of those who had interacted with PC, 100% indicated a benefit of having PC involved. These included freeing up ED clinicians for other tasks (89%), helping them feel more supported (84%), changing the patients care trajectory (67%), and contributing to clinician education (57%) and skills (49%). Among barriers related to engaging PC were difficulty locating them (8%) and lack of time to consult because of ED volume (5%). About 98% of respondents felt that having PC in the ED was either valuable or very valuable. Open-ended responses reflected a positive impact on clinician wellness and improvement in access to high-quality goal-concordant care. Clinicians expressed gratitude for having PC in the ED and noted the importance of having readily available and easily accessible PC in the ED.

Conclusion. ED clinicians' perception of embedded PC was overall positive, with an emphasis on the impact related to task management, enrichment of PC skills, providing support for the team, and improved care for ED patients. J Pain Symptom Manage 2020;60:e35–e43. © *2020 American Academy of Hospice and Palliative Medicine. Published by Elsevier Inc. All rights reserved.*

Key Words

Emergency medicine, COVID, palliative care, palliative medicine, patient care planning, end-of-life care, goals of care

Background

Emergency departments (EDs) are the site of care for many patients with advanced life-limiting illness, with ED visits increasing as serious illness progresses toward the end of life.[1–3] Among this population, it has been noted that many patients have unmet palliative care (PC) needs.[4] Accordingly, there is consensus among emergency medicine's professional societies

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that increasing PC research and presence in the ED is important.[5,6] The American Board of Internal Medicine's Choosing Wisely Campaign includes recommendations not to delay in engaging available palliative and hospice services in the ED for patients likely to benefit.[7]

In the setting of coronavirus disease (COVID), this need has intensified.[8] Although several case studies of PC in the ED exist in the literature describing the structure or outcomes of a PC clinician dedicated exclusively to the ED (embedded) before COVID,[9] no study has reported on ED clinicians' experience of embedded PC in the ED. Similarly, although reports have begun to emerge describing the structure and patient outcomes of PC involvement in the ED during COVID, no study has reported on the experience of these programs in EDs.[10] As hospitals and health systems look to design ED PC models of care delivery to respond to ongoing surges, the insights of frontline providers can help inform these efforts. This study aimed to describe ED clinicians' experience of an embedded PC physician in the ED during COVID and to examine their recommendations for future integration of PC in the ED.

Methods

Study Setting and Intervention

In March 2020, at our urban academic ED (115,000 annual visits) in the U.S., the volume of COVID-19 patients began to grow. Given this unprecedented growth, we felt that there was an urgent need to embed a PC clinician into the ED. We launched a pilot program that embedded a PC physician in the ED seven days a week from 9 AM to 7 PM. Five PC physicians served in this role. This pilot study lasted eight weeks.

Measurement

In May 2020, we conducted a survey of ED clinicians (residents, attending physicians, and advanced practice providers) in the ED. The survey tool (Appendix) was created through a collaboration between ED and PC physicians, with supervision from a licensed clinical psychology researcher with experience conducting qualitative research in PC and other medical settings.

The survey had both closed-ended questions (predefined checklists [choose all that apply] and Likert-type scales) and three open-ended questions. Two of the questions were only asked of respondents that interacted with PC in the ED: one asked them to think of an interaction with the embedded PC clinician that went well and to reflect on what was helpful about it; the second was to think of an interaction that did not go as they would have liked and asked them to reflect on what was not helpful about it. All participants were also asked, in their ideal world, what PC engagement in the ED would look like.

Before administration, the survey was tested for clarity and iteratively refined with one ED physician who had not been involved in the survey's initial design. This study was reviewed and determined to be exempt by the Partners Human Research Committee/Institutional Review Board.

Study Participants

All emergency attending physicians and advanced practice providers were surveyed. As residents rotate at multiple sites, only residents rotating at the study site during the intervention were surveyed. In addition, the survey included branching logic that accounted for the varying degrees of exposure that clinicians had to PC physicians in the ED during the study period. For example, if a clinician taking the survey had not worked in the ED in the eight weeks of the program, the survey ended. If they had worked during the intervention period but had not interacted with the PC physician, they received only questions about the barriers to engaging PC and the reasons for not interacting with them.

Analysis

Quantitative data were analyzed using descriptive statistics, including frequencies for categorical items and means (SD) for continuous items. The one question that presented a Likert scale was summarized using mean and 95% CIs. We analyzed the open-ended responses using an inductive thematic analysis approach to provide an essential account of participants' responses at the semantic level and to identify patterns or themes across the responses.[11] We first reviewed the responses to the open-ended survey questions. We used the questions and responses to develop codes and then organized these codes into categories. Using Dedoose qualitative data analysis software (Version 8.0.35; SocioCultural Research Consultants, LLC, Los Angeles, CA), two team members (E.L.A. and L.T.) used the coding structure to code all open-ended responses in an initial 15% of surveys and examined unexpected data and/or discrepant coding until resolution. New codes were incorporated into the structure as needed. One coder (E.L.A.) then coded all open-ended responses within all remaining surveys. The study team then reviewed the coded data to identify overarching themes and exemplar quotes. We compared the themes back to the raw data and defined each theme to ensure a clear and coherent account of the data.

Results

There were 134 clinicians invited to participate in the survey during the study period. About 101 replied (75% response rate). Of these, 80 had worked in the ED during the embedded PC program. Of the clinicians who had been in the ED, 91% (73 of 80) had interacted with PC during their shift. Most respondents (75 of 101) had 10 years of experience or less and were males (56 of 101). About 39.6% of respondents were attending physicians, 31.6% were residents, and 28.7% were advanced practice providers (Table 1).

Benefits

Of the clinicians who had interacted with the embedded PC clinician while working in the ED ($n = 73$), 100% of them endorsed at least one of the following predefined benefits from interacting with the embedded PC physician: freed them up for other tasks (89%); helped them feel more supported during their shift (84%); changed the patient's management or care trajectory (67%); contributed to their personal education about goal-concordant care (57%); and added to their own skill set/confidence in practicing primary PC within the ED (49%).

Barriers

The 80 clinicians who had worked in the ED during the embedded PC program were asked if they experienced any of a set of predefined barriers to accessing the PC clinician during their shift. Respondents endorsed difficulty locating PC (8%; 6 of 80); lack of time to consult because of ED volume (5%; 4 of 80); and the PC clinician not being available or being busy with other patients (4%; 3 of 80).

Respondents endorsed other predefined reasons for not interacting with the embedded PC clinician: there was no patient on their shift who needed a PC conversation (18%; 14 of 80); and patients on their shift were in acute clinical condition/crashing (15%; 12 of 80). Zero respondents stated that they did not see the added value of having an embedded PC team in the ED.

When asked, overall, how valuable do you find PC in the ED? on a five-point Likert scale (1—not valuable at all; 5—very valuable), the mean response was 4.61 (95% CI = 4.49–7.73). About 64% (51 of 80) of respondents responded very valuable, 34% (27 of 80) responded valuable, 3% (2 of 80) responded neutral, and 0 respondents listed not valuable or not valuable at all (Fig. 1).

Table 1
Characteristics of Survey Participants

Variable (*N*)	*N* (%)
Total respondents (134)	101 (75)
Years of experience (101)	
0–4	53 (52.47)
5–10	22 (21.78)
11–15	7 (6.93)
16–20	8 (7.92)
21–25	7 (6.93)
>25	4 (3.96)
Role (101)	
Attending	40 (39.60)
Resident	32 (31.68)
APP	29 (28.71)
Gender (101)	
Female	39 (38.61)
Male	56 (55.44)
Not specified	6 (5.94)

APP = advanced practice provider.

Narrative Comments

There were 30 responses to the question asking participants to think of an interaction with the embedded PC clinician that went well and to reflect on what was helpful about it; nine responses to the question asking them to think of an interaction that did not go as they would have liked and asked them to reflect on what was not helpful about it, and 77 responses to the question asking participants, in their ideal world, what PC engagement in the ED would look like. When the comments related to what went well were systematically coded and analyzed, several themes emerged (Table 2).

Gratitude and Appreciation

First, responses reflected ED clinician gratitude and appreciation for engagement of PCs in the ED (e.g., *love them, please never let them leave, so appreciated, all of our interactions were outstanding, the PC team was an incredible resource for our group and for our critically ill patients*, and *the gratitude is profound*).

Quality of Care

Second, responses reflected ED clinician perception that PC engagement elevated the quality of the care provided to patients. Some respondents explicitly noted this, such as it improved the quality of care and the patient and family and provider satisfaction with the care delivered. Some noted the care delivered contrasted with usual care, such as:

> Their expertise allowed us to provide care within the truest direction and compliance of patient's GOC [goals of care], which sometimes I feel can be lost in the rush and uncertainties of an emergency room.

> Having the longer conversations with the family about nuances of advanced care beyond "do you want compressions/breathing tube y/n, and if you're unsure it's yes."

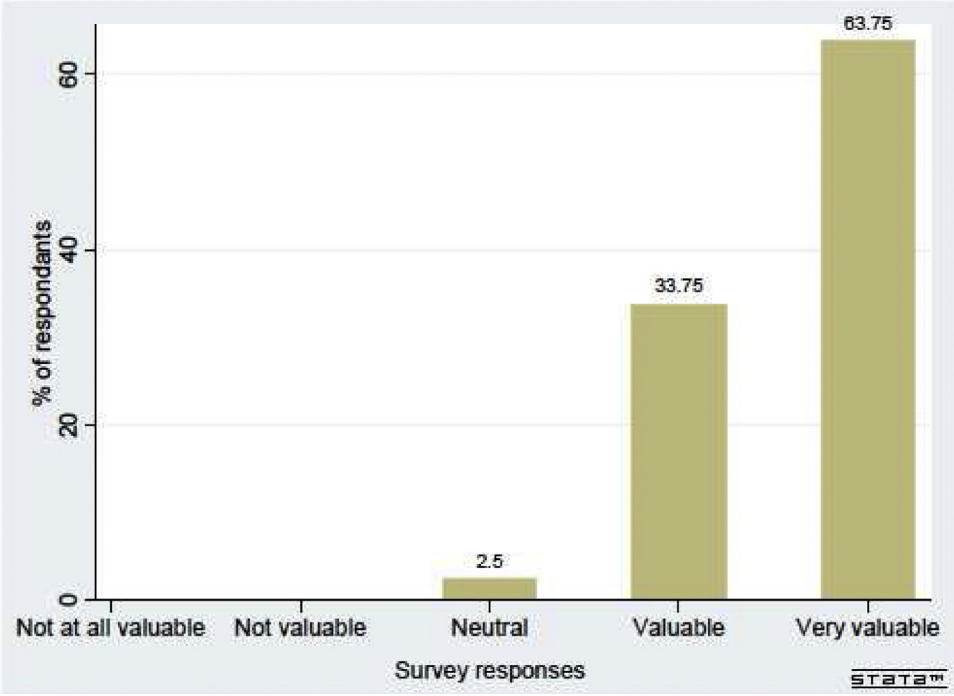

Fig. 1. Response to question about overall value of palliative care in the emergency department.

Gaps in Care

Several respondents contextualized other comments by identifying gaps in care that exist in the absence of a PC team in the ED such as:

> I worry that Emergency providers are too brusque for patients/family to handle this beyond a "pro forma" questioning of "if your heart stops/breathing stops what do you want … " I feel we (the ED) often fail to reestablish realistic goals of care when patients have poor prognosis … Alternatively, there are some patients with DNRs that lead to us withholding care when the prognosis is not so bad.

Table 2
Thematic Index

1. Patient and family care behaviors or characteristics of the PC clinician
   - 1.1 Connected and worked with families
   - 1.2 Discussed goals of care, code status, or serious illness
   - 1.3 Highly skilled, thoughtful, or helpful
   - 1.4 Significant time spent with patients and families
   - 1.5 Debriefed with the ED team
2. Benefits to engaging PC
   - 2.1 Assisted with complex cases
   - 2.2 Changed the care trajectory
   - 2.3 Collaborated/worked together on patient care
   - 2.4 Provided higher quality care
   - 2.5 Learned from the PC clinician (teaching/education)
3. Barriers to engaging PC
   - 3.1 Lack of availability
   - 3.2 Lack of timely response
   - 3.3 Time intensive
4. Ideal care delivery models for future PC engagement in the ED
   - 4.1 24/7 availability
   - 4.2 Debrief/close the loop
   - 4.3 Conduct discussions with patients and families
   - 4.4 Engage early in the ED course
   - 4.5 Fully embedded
   - 4.6 Engage in proactive case identification
   - 4.7 Readily available
   - 4.8 Engage in teaching and education

PC = palliative care; ED = emergency department.

Goal-Concordant Care

ED clinicians also specifically reflected on the positive impact that PC physicians had on achieving goal-concordant care in the ED:

> [There were] times when I disagreed with the family but palliative care was instrumental in advocating for them and listening in longer conversations that I would not have had time for, and they make me feel more confident that the clinical decisions are in line with the patients and families' goals of care.

Peace of Mind and General Wellness

Third, ED clinician responses reflected the positive effect that the PC physician had on the team's peace of mind and general wellness:

> Knowing that a really high-quality goals of care conversation was happening for our patients.

> It was reassuring seeing the team physically present in the ED

> This added a sense of support AND better care for the patient.
>
> Having gone from feeling incredibly well-supported at [primary study site] to switching back to [other hospital] where we do not have this, I feel as though I'm missing a hand.

Helpful

In addition, there was a theme that emerged related to how generally helpful having PC in the ED was, with the word helpful appearing 58 times in the 116 of the open-ended responses.

The remainder of these responses was related to direct patient care *behaviors* (such as discussing goals of care, code status, or serious illness; or spending significant time with patients and families), *characteristics* (highly skilled, thoughtful, and helpful), and the *benefits* (such as changing the care trajectory; or learning from the PC team) of the embedded PC physicians in the ED.

Barriers

When asked to think of an interaction with the embedded PC clinician that did not go as they would have wanted and what was not helpful about it, nine respondents provided free-text answers. The participants identified two main barriers to PC integration: lack of PC clinician availability or timely response and the time-intensive nature of serious illness conversations:

> It would have been helpful to have them available overnight as well for GOC conversations (I had a pt come in at 2 am whose family wanted to change code status to full code)
>
> We had the PGY4 accompany the Palliative Care attending to go call the family and discuss medical status, goals of care. This process took about 25 minutes − and that's a very long time to have the Acute PGY4 out of commission

Among the responses related to barriers, one respondent offered the following concern:

> I just have one concern, sometimes as ED docs, we have a different view of what life is considered valuable or worth living. Sometimes, being on a trach/vent, might be the worst things for us but there are others who might not see it this way. I wish we can have more education on this. I'm glad palliative care is there but sometimes when families hear palliative care, they may think that we don't want to do anything more. I just would appreciate more education about when a goals of care discussion is pertinent in the ED vs in the ICU.

Ideal Models of Care Delivery

When asked, in an ideal world, what would PC engagement look like in the ED to best support their work, 77 respondents provided free-text replies. Similar to the other questions, some contextualized this in the challenges of the current model and their own limited experience:

> With palliative care consults normally, they often cannot see patients quickly enough to change management.
>
> We don't have a lot of experience with pal care so sometimes I don't even realize the role they can provide.

The remaining comments related to both the logistics of the service (24/7 availability, being readily available, engaging early with cases as they arrive, and proactive case identification) as well as the content of the work (engaging in teaching and education, debriefing, and closing the loop with the ED team).

Discussion

In this single-center study of ED clinicians' experience with embedded PC in the ED, we identified several benefits, barriers, and suggestions for ideal models of care delivery. ED clinicians had generally favorable experiences, citing benefits related to both patient care, such as changing patients' care trajectory and improving the quality of care, as well as benefits related to their own experience, such as freeing them up for other tasks, contributing to their education, and helping them feel more supported. Reported barriers were primarily related to the availability of PC (especially overnight) and the challenges of engaging PC in the setting of high-acuity patients.

There has long been interest in increased integration of PC subspecialty teams into EDs, and this study provides insight into ED clinicians' perception of some of the potential benefits of doing this. Our results elucidate both the *actions* that were most commonly identified as beneficial as well as the *reason* they were helpful. These results may present a path forward for the optimization of PC integration in the ED both in the context of a pandemic and perhaps outside it. By offering insight into both helpful behaviors and the reasons that the ED team found them helpful during COVID, institutions can design programs for ED PC integration during COVID with these goals in mind. In addition, our findings represent an opportunity to test which of these may continue to present value outside a pandemic.

As noted by respondents, some of the actions that were most commonly identified as beneficial related to conducting goals-of-care conversations, being readily available, teaching, collaborating, and debriefing with the ED clinicians.

The reasons clinicians gave for deeming PC integration beneficial included both positive effects on patients and effects on the care team. Related to patient care, most respondents (67%) believed that PC involvement in the ED changed their patient's care trajectory, with a clear theme emerging in the open-ended responses related to the role that having PC in the ED played in improving the quality, and the goal-concordant nature, of the care.

Related to the effect on the care team, 89% reported that it freed them up to do other tasks. In addition, in both the closed and open-ended responses, respondents noted the positive effect that having PC in the ED had on their ability to feel more supported during their shift and on their general wellness, with 84% of respondents noting that it helped them feel more supported on their shift. Understanding that ED physicians have the highest rate of burnout compared with all specialties,[12] it is not surprising that so much effort has focused on identifying solutions to mitigate this. Interestingly, as noted in a recent commentary by Ravi Katari,[13] despite acknowledging that many of the key drivers of burnout are related to the work environment, most of the solutions have focused on individual resiliency tactics. Identifying a modifiable factor in the clinical environment, such as embedding a PC clinician, that is perceived to cultivate wellness offers a particularly important finding that has not yet been identified in the literature.

The impact of having PC in the ED during COVID was also noted to improve the learning and education of the care team. This was noted in both the quantitative results as well as in both the closed and open-ended responses, with respondents noting the important role that having this specialist in the ED played in their own skill development. Although the focus in the ED PC literature on increasing primary PC has largely focused on classroom training programs,[14–17] this model of at-the-elbow education may be particularly valuable and warrants further study.

Interestingly, when asked about barriers to PC engagement, or about interactions that did not go well, only one respondent offered a concern. This was related to challenges associated with determining optimal timing for goals-of-care conversations. Prior work by Grudzen et al.[18] exploring the attitudes of ED providers demonstrated several other concerns including challenges reconciling the two cultures and medicolegal concerns. Almost 10 years later, in our study, these issues were not raised.

Quantitatively, no respondents selected the option of *I do not see the added value of PC in the ED*. Although resistance to engaging PC has been documented in other specialties,[19] and concern was previously raised about the possibility that PC would not be well received in the ED,[20] this was not the case in our study. Our findings align more closely with prior work, which showed that focus groups of ED providers were receptive to PC consults in the ED.[18] In this single-center study during COVID, ED clinicians indicated no objectives to the engagement of PCs. Instead, a theme of gratitude emerged in the free-text comments. What is not known is the role that COVID played in creating a particularly receptive environment for embedded PC in the ED. It is possible that in the setting of the pandemic, there was a more acute recognition of the importance of, and willingness to partner with, PC in the ED. In addition, it is possible that the clinical environment and patient mix shifted so dramatically that the need that was being met would not otherwise exist. However, our findings do align with previously published literature reporting that although most emergency medicine clinicians have had little or no formal training in PC skills, they view palliative medicine as valuable in improving the care of patients in the ED, and have interest in more PC integration.[9,21,22]

The highest response rate to any individual qualitative question related to the ideal model for ongoing PC in the ED (77 responses). The respondents unanimously wanted to see ongoing engagement of PC subspecialty clinicians in the ED. This question also yielded some clear recommendations related to the importance of PC being readily available and engaging early in the patient's ED course. All these suggestions would likely require an embedded PC resource in the ED. It would likely be challenging to achieve this type of rapid involvement leveraging a consult model, which relies on a PC clinician responsible for other areas of the hospital.

In addition, the importance of proactive case identification emerged in the free-text fields related to ideal models of care. Respondents noted that their lack of experience with PC limited their ability to effectively identify cases that would benefit from their involvement. This reported lack of recognition may explain why 18% of respondents felt that no patients on their shift had PC needs.

When describing the behaviors that respondents would like to see integrated into a model moving forward, working directly with patients and families to have discussions about goals of care emerged as an important aspect of the work. Interestingly, respondents in our study did not mention symptom management, despite this being a frequently discussed area for increased education and clinical improvement in

previous ED-PC studies. This may be a result of different needs for patients presenting during the COVID pandemic, local differences in symptom management training for ED clinicians, or clinicians failing to recognize inadequately treated symptoms.

Limitations

There are several limitations to our study. The experience that we were evaluating was of a fully embedded PC physician in the ED during the COVID pandemic. Most programs that have been previously described leverage either PC consulting physicians (not fully embedded) or an advanced practice provider. As such, it is possible that these findings may not be generalizable to these different program structures or to a clinical environment in the absence of COVID. The generalizability of our findings is also limited by the fact that it was conducted at a single site with a well-developed PC consult service. As a survey, we are limited by response bias, and the results only represent the views of those who elected to respond. This concern is somewhat offset by the high response rate. These results captured subjective reports and may not translate into objective findings. For example, although 67% of respondents reported that PC engagement changed the care trajectory of their patients, we are not able to verify that this was indeed the case.

Conclusions

We sought to understand ED clinicians' perception of an embedded PC physician in the ED during COVID. ED clinicians had a generally favorable experience, citing several benefits to engagement of PCs in the ED, demonstrating a perceived impact on both patients (changing their care trajectory and improving the quality of care) and clinicians (freeing them up for other tasks, contributing to their education, and helping them feel more supported). Although some barriers (related to the availability of PC or acuity of patients) were noted, there was consensus that the ED clinicians surveyed would like to see ongoing engagement of PC in the ED. Future research should focus on understanding the impact of this model of care delivery in the absence of COVID as well as evaluating patient outcomes associated with embedded PC in the ED.

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Appendix. Survey of ED providers on experience of embedded PC in ED

Thank you for participating in this brief survey about your recent experiences with embedded PC in the ED. The information you share will help us to better understand and enhance PC integration and support in the ED setting.

This survey should take about two minutes. There is no right or wrong answer. Just respond as honestly as you can. If we use the information you share, such as for publication or future programming, we will do so in a way that you cannot be personally identified.

1. What is your role in the ED?
    1. Resident
    2. Attending
    3. Physician assistant
2. How many years of experience do you have working in the ED?
    1. 0–4
    2. 5–10
    3. 11–15
    4. 16–20
    5. 21–25
    6. >25
3. What is your gender?
    1. Male
    2. Female
    3. Prefer not to disclose
    4. Other
4. Have you worked in acute between 9 AM and 7 PM in the last eight weeks?
    1. If no, survey complete
    2. If yes,
        1. Did you interact with the embedded PC physician during one or more of your shifts?
            1. If no,
                1. Did you face any barriers to accessing the embedded PC clinician during a shift? (Check all that apply):
                    1. Could not locate them
                    2. Lack of time to consult with them because of ED volume
                    3. They were not available (e.g., they were busy with other patients)
                    4. Other (with free text)
                2. Did you have other reasons for not interacting with the embedded PC clinician during a shift? (Check all that apply):
                    1. No patient on my shift was at the point of needing a PC conversation
                    2. Patient(s) were in acute clinical condition (e.g., crashing patient)
                    3. Do not see the added value of PC in the ED setting
                    4. Other (with free text)
            2. If yes,
                1. Did you experience any of the following benefits during consultations that you had with the embedded PC clinician? (Check all that apply):
                    1. Changed the patient's management or care trajectory
                    2. Freed up the care team to do other tasks
                    3. Contributed to the education of the care team about goal-concordant care
                    4. Helped me feel more supported during my shift
                    5. Added to my own skill set/confidence in practicing primary PC
                    6. Did not experience any benefits
                    7. Other (with free text)
                2. Did you face any barriers to accessing the embedded PC clinician during a shift? (Check all that apply):
                    5. Could not locate them
                    6. Lack of time to consult with them because of ED volume
                    7. They were not available (e.g., they were busy with other patients)
                    8. Other (with free text)
                3. Did you have other reasons for not interacting with the embedded PC clinician during a shift?
                    1. No patient on my shift was at the point of needing a PC conversation
                    2. Patient(s) on my shift were in acute clinical condition (e.g., crashing patient)
                    3. Do not see the added value of PC in the ED setting
                    4. Other (with free text)
                4. Please think of any interactions with the embedded PC clinician that went well. What was helpful about it?
                5. Please think of any interactions with the embedded PC clinician that did not go as you would have wanted. What was *not* helpful about it?
    2. Overall, how valuable did you find PC in the ED? (1–5 Likert scale—not valuable at all/not valuable/neutral/valuable/very valuable)
    3. In your ideal world, what would PC engagement look like in the ED to best support your work (free text).